

at least one pair of emitter regions of the first conductivity type formed as part of the upper surface of said base region;

an insulating layer formed to contact said base region, located between said emitter regions and said semiconductor layer;

a gate electrode placed on the upper surface of said insulating layer;

an interlayer insulating film formed to cover said gate electrode;

a barrier metal layer formed to continuously contact said interlayer insulating film, said base region, and said emitter regions; and

an emitter electrode formed on the upper surface of said barrier metal layer,

wherein said barrier metal layer formed between said emitter electrode and said interlayer insulating film comprises a layer containing nitrogen.

7. (New) The field-effect semiconductor device according to claim 6, wherein said barrier metal formed between said emitter electrode and said interlayer insulating film comprises titanium nitride.

8. (New) The field-effect semiconductor device according to claim 6, wherein the thickness of said barrier metal layer is more than 40 nm.

9. (New) The field-effect semiconductor device according to claim 6, wherein the impurity density of said interlayer insulating film is less than 5 mol %.

10. (New) The field-effect semiconductor device according to claim 6, wherein said emitter electrode comprises aluminum.